

REMARKS

The Official Action dated April 22, 2005 and the references cited therein have been fully considered. Reconsideration of this application as amended is respectfully requested in light of the foregoing amendments and following remarks.

Claims 1-15 are pending in the application.

Claims 1-41 are canceled.

New claims 42-57 are presented for consideration.

Support for newly presented claims can be found on page 11, lines 13-34, page 4, lines 19-28 and Example 2. These passages disclose the use of packaging signals containing less A elements than wildtype, i.e. less than seven A elements. There is also a disclosure of replacing the eight ambiguous nucleotides in the consensus sequence of each A element with the eight nucleotides from a different A element. Thus, all A elements used in the present invention as defined in claim 16 are different from each other.

The term “low homology” has been deleted from the claims. The term “modified (adenovirus) packaging signal” is now defined by structural features.

It should be noted that in claim 16 the last two bases of the consensus sequence for the A element have been reversed, i.e. “CG” has replaced “GC.” This correction is obvious to the skilled reader in view of Schmid *et al.*, 1997, *J. Virol.* 71: 3375-3384, which was cited by the Applicants on page 11, lines 16-17. Furthermore, the correct sequence is evident from the Examples and sequences in the present application. Example 2 contains A elements which end, as the skilled person would expect, with CG. Thus, this correction in no way changes the substance of what has been disclosed and/or claimed and, as such, does not constitute new matter. Appropriate changes to the Specification and Sequence Listing have been included with this response to make this correction.

Claim Objections

Claims 10-15 are objected to as being in improper dependent form. Applicants have amended claims 10-15 in the newly presented claims 42-57 to more distinctly claim the

nucleic acid molecule of claim 42 for use as a helper virus vector. Support for newly presented claims 42-57 can be found on page 4, lines 19-28 of the Specification.

Applicants request that this objection be withdrawn in view of the amendments made herein.

Claim Rejection Under 35 U.S.C. §102

Claims 1-5, 7 and 9-12 are rejected under 35 U.S.C. §102(b) in view of Hardy *et al.* (WO 97/32481) in view of Grable *et al.* (1990). It has been asserted that Hardy teaches a low homology packaging signal cassette comprising six synthetic repeated A elements as defined by Grable (1990). Applicants respectfully traverse this rejection.

Hardy does not disclose a packaging sequence as defined in new claim 16. The only specific synthetic sequence given is at page 20, lines 22-29. The sequence consists of the six tandemly repeated “A” repeats disclosed in Grable. According to Grable, this packaging sequence contains six tandem AII elements, which is not the same sequence as SEQ ID NO:1. Such a sequence does not fall within new claim 42 which requires that each A element to be different. Nor does Hardy (even in view of Grable) disclose a sequence in which the eight ambiguous nucleotides within each of the A elements have been replaced by the eight ambiguous nucleotides of another A element. Thus, there is no teaching, either expressed or implicit, in Hardy of the claimed packaging signal cassette.

Applicants request that the Examiner reconsider and withdraw this rejection.

Claim Rejection Under 35 U.S.C. §103

Claims 1, 4-6, 8, and 11-15 are rejected under 35 U.S.C. §103(a) as being unpatentable over Hardy in light of Grable and Schmid et al. The assertions as to Hardy and Grable are the same as above. Schmid teaches the A repeat sequence of SEQ ID NO:1. It has been asserted that one skilled in the art would have been motivated to make the claimed invention in view of the teachings of Hardy and Grable combined with the consensus sequence of Schmid. Applicants respectfully traverse this rejection.

Serial No.: 09/890,836
Case No.: 20377YP
Page 9

As noted above, there is no disclosure in Hardy and Grable as to the modified packaging signal feature claimed by the Applicants. Even the addition of the corrected consensus sequence as taught by Schmid would not result in the claimed invention. There is nothing in Hardy suggesting the use of the particular packaging sequence required by new claim 42. None of the prior art discloses a sequence in which the ambiguous nucleotides of each A element are replaced by those of another A element. As such, contrary to the assertions in the Office Action, there is no disclosure in Hardy or in view of Grable or Schmid that would motivate or suggest to even one highly skilled in the art of genetic manipulation to make the nucleic acid molecule with the modified packaging signal and the features of these claims.

Applicants request that the Examiner reconsider and withdraw the rejection of the claims under 35 U.S.C. §103.

Serial No.: 09/890,836
Case No.: 20377YP
Page 10

CONDITIONAL PETITION

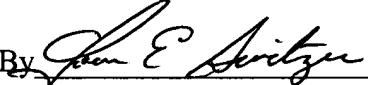
Applicants hereby make a Conditional Petition for any relief available to correct any defect in connection with this filing, or any defect remaining in this application after this filing. The Commissioner is authorized to charge deposit account 13-2755 for the petition fee and any other fee(s) required to effect this Conditional Petition.

Serial No.: 09/890,836
Case No.: 20377YP
Page 11

CONCLUSION

In view of the foregoing amendments and remarks, it is seen that all grounds of rejection have been overcome and that Claims 42-57 are in proper condition for allowance. Accordingly, Applicants respectfully request that all of the objections and rejections of record be withdrawn and that a Notice of Allowance be forwarded to the Applicants. An early Office Action to that effect is, therefore, earnestly solicited. The Examiner is invited to contact Applicants' Attorney at the telephone number given below, if such would expedite the allowance of this application.

Respectfully submitted,

By 

Joan E. Switzer
Reg. No. 34,740
Attorney for Applicant

MERCK & CO., INC.
P.O. Box 2000
Rahway, New Jersey 07065-0907
(732) 594-5616

Date: August 15, 2005